

REMARKS/ARGUMENTS

Claims 1 through 25 were pending in this application. The present Amendment amends independent claims 1 and 12. Reconsideration and favorable action are respectfully requested.

Rejections Under 35 U.S.C. § 103(a)

Various claims are rejected under 35 U.S.C. § 103, and each of those rejections relies first on Nguyen US Patent 6,307,978 (hereafter “Nguyen”). Applicant stands by the independent bases set forth in its previous response as reasons as to why the rejections under Section 103 should be withdrawn and respectfully requests reconsideration of same, understanding of course that the Examiner has responded thereto and thus an appeal may be warranted for a determination as to the correct position as between the Applicant and the Examiner.

Claim 1 is further rejected under 35 U.S.C. § 103 in view of Metaxas US Patent 6,307,978 (hereafter, “Metaxas”). Applicant further traverses and requests withdrawal of this rejection, for either or both of the reasons set forth below.

First, Metaxas explicitly teaches away from the invention of claim 1 in that Metaxas, as the Examiner states, describes simultaneously processing image data of multiple pixels in a *diagonal* fashion; this is very clear, by way of example, in Metaxas Figure 4, where the “numbers within the pixel boxes in FIG. 4 indicate the order with which pixels are processed relative to one another.”¹ For example, in the first (i.e., top) row of area A₃, the leftmost pixel numbered “4” is simultaneously processed at the same time as the leftmost pixel in a different row, that is, the second row of area A₁. Indeed, by looking across each row in Figure 4, it is appreciated that the same number is never used inside a box along a same row. Therefore, it is readily seen that at no time does the step of claim 1 occur that recites “simultaneously processing image data for at least two pixels in a row of pixels.” Accordingly, the Examiner should not be free to simply discard a salient teaching of Metaxas in then combining it with Nguyen, and it is also noted therefore that Applicant has proceeded in a manner, as claimed, that is in fact contrary to the approach of either Nguyen or Metaxas..

Second, even if Metaxas were combined with Nguyen as the Examiner suggests, the result would not show the invention of independent claim 1. Specifically, the Examiner has offered the following combination of Nguyen and Metaxas:

Therefore, the length “d” in figure 5 of Metaxas would be broken into two or more sections to be processed in parallel, such as shown in figure 5 of Nguyen. When the last pixel of A_k in figure 5 of Metaxas is processed, the next group to be processed, which is the first group in the

¹ Metaxas, col. 4, lines 9-12.

portion of A_{k-1} in the same row, is processed according to the method of Metaxas.

Thus, the Examiner suggests that each “section” would be “processed according to the method of Metaxas.” However, Metaxas does not at all disclose the propagation of error portions as recited in amended claim 1, namely, that:

propagating none of said error word for each pixel in said first group to another pixel in said first group and a portion of said error word for each pixel in said first group to at least two pixels in a next row of pixels; and

propagating a first portion of said error word for said last pixel to at least one pixel in said next row of pixels and a second portion of said error word for said last pixel to at least one pixel in said group of pixels to be processed next

Accordingly, Applicant respectfully submits that amended claim 1 is in condition for allowance, as are its dependent claims 2-11 and 23.

Independent claim 12 is amended comparably to independent claim 1. For reasons of record, Applicant therefore likewise respectfully submits that amended claim 12 is in condition for allowance, as are its dependent claims 13-20 and 24.

Independent claim 21 recites “propagating portions of said error word for each pixel in said first group only to pixels in a next row of pixels” while also “propagating a first portion of said error word for said last pixel to at least one pixel in said next row of pixels and a second portion of said error word for said last pixel to at least one pixel in said group of pixels to be processed next.” The Examiner now not only combines Metaxas with Nguyen but also further with Yamada. Applicant respectfully submits that the motivations offered by the Examiner for this combination are nothing more than hindsight justification to parse pieces from prior art and somehow attempt to insinuate that one skilled in the art would have made this combination, while all along ignoring the very teachings in that prior art that indicated quite the contrary. For example, Nguyen focuses on sections of rows and within those sections there is serial, not parallel, pixel processing. While a teaching/suggestion/motivation may not be an exhaustive test for what a reference can render unpatentable, Applicant respectfully submits that what the reference does teach/suggest/motivate in a specific endeavor does evidence what the reference would have led one skilled in the art to attempt, so such teaching/suggestion/motivation cannot be completely discarded. In view thereof, the Examiner does not address how one skilled in the art would have somehow discarded this express approach of Nguyen in order to obtain a general performance benefit and so as to supposedly arrive at the claimed invention. As another example, the propagating of error in a section by Nguyen is virtually the polar opposite of what is recited in claim 21, namely: (1) in Nguyen, for each section, the filter used on every pixel other than the last pixel indeed propagates a portion of the error to other pixels in the same row and thus to more than only pixels in a next row of pixels; the Examiner again does not address how

one skilled in the art would effectively ignore these teachings so as to endeavor from this reference in a completely different direction; and (2) in Nguyen, for each “segment,” the filter used on the last pixel in a segment does not apply weight to a pixel in the same row and in fact Nguyen many times states expressly not to do so; again, the Examiner does not state how this teaching can be disregarded. As another example, the Examiner adds Metaxas to the combination, and as noted above and elsewhere in the record there are teachings contrary to such a combination, including that Metaxas describes diagonal simultaneous processing, not simultaneous processing in a row as recited in claim 21; still again, the Examiner does not address how one skilled in the art would overlook this limitation. Lastly, now, in addressing claim 21, the Examiner adds Yamada to the combination, confusing even further what one skilled in the art could possibly viably see if Nguyen were added with Metaxas were added with Yamada. Instead of addressing what is quite possibly the impossibility of combining those references to yield a meaningful enabled combination, the Examiner instead parses out only a portion of Yamada from its Figure 7. However, even with that selectivity, Yamada Figures 7A and 7B show two alternating error diffusion patterns, both of which require weights applied to a later row of pixels while there is nothing to offer that one skilled in the art could thereby know to take this sole approach and extend it with other filters. Stated simply, the Examiner is using the hindsight of Applicant’s own teaching.

Accordingly, Applicant respectfully submits that amended claim 21 is in condition for allowance, as therefore are its dependent claims 22 and 25.

Conclusion on rejections under Section 103

Applicant respectfully submits that the present application does not lend itself to a comparison to a case of merely substituting common elements to yield predictable results. Instead, in a very complex art, Applicant has invented specific combinations that are not only missing from the prior art but that the prior art in its complexity does not address and away from which the prior art either teaches or suggests in its own alternative approaches, other than having some basis goals in common. That commonality should not be sufficient to render all future comers in this art from obtaining patent protection for their inventions.

As stated in MPEP § 2145,III:

“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art.” *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).”

Here, the Examiner is using as his test “whether” features of Nguyen, Metaxas, and/or Yamada could be combined – in effect, by stating a very broad performance enhancing goal, the Examiner is contending that any portion of any reference in this field could be selected and combined with any other so as to render any new combination unpatentable. Certainly such a contention is overbroad as compared to cases (e.g., *KSR*) where the

differences between the claim and collective references demonstrate a rather minute or incremental change. Instead, therefore, Applicant respectfully submits that the Examiner must ascertain what the references would have led one skilled in the art to construct, given of course also their knowledge, and in making that determination and considering the references as a whole there would not be the likelihood to discard so much of the relevant approaches provided in the references so as to leave just portions thereof and then combine those portions while somehow disregarding the dominant or salient focus of each reference. In conclusion, therefore, the references each show filters or propagation of error in very different ways than that claimed, and those different ways themselves bode against dissecting each reference one into small constituent parts that then become combinable with one another, while ignoring the rest of the reference, so as to reject the pending claims.

Fees

A Petition for an Extension of Time for two (2) months is submitted herewith. The Commissioner is authorized to charge this Petition fee, and any other fees necessary to effect the present filing, to Deposit Account 20-0668 of Texas Instruments Incorporated.

Conclusion

Applicant respectfully requests that a timely Notice of Allowability be issued in this case.

Respectfully submitted,

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The undersigned hereby certifies that this correspondence is being transmitted via PAIR e-filing, on **June 16, 2008**, to the United States Patent Office.

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